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## ABSTRACT OF THE INVENTION

A novel polypeptide, osteoprotegerin
binding protein, involved in osteolcast maturation has
been identified based upon its affinity for
osteoprotegerin. Nucleic acid sequences encoding the
polypeptide, or a fragment, analog or derivative
thereof, vectors and host cells for production, methods
of preparing osteoprotegerin binding protein, and
binding assays are also described. Compositions and
methods for the treatment of bone diseases such as
osteoporosis, bone loss due to arthritis or metastasis,
hypercalcemia, and Paget's disease are also provided.